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U.S. DEPARTMENT OF AGRICULTURE

REPORT NO. 4

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Cotton Fiber and Processing Test Results

CROP of

1976



Agricultural Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38122 October 22, 1976

COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1976

Discussion of Test Results

The average Fibrograph 2.5% span length of short staple samples tested from the Southwest through October 15 is shorter than a year ago, according to the Cotton Division, Agricultural Marketing Service, USDA. Cottons are less uniform. The average fiber strength is considerably weaker than a year ago on the limited number of lots tested this season. Shirley Analyzer nonlint content is lower, while picker and card waste on the average is higher than last season. Yarns spun from these samples show considerably weaker yarn strength but approximately the same appearance and imperfection qualities as a year ago. The average spinning potential yarn number is lower.

Medium staple samples tested from the South Central area are slightly shorter and considerably finer than a year ago at this time. The average 1/8-inch gage fiber strength is weaker. Picker and card waste is higher. Generally the yarn qualities are better than a year ago. Yarns spun from these samples show stronger skein strength and higher appearance grades than a year ago. There are fewer imperfections. The average spinning potential yarn number is higher.

Medium staple samples tested from the Southwest show cotton fibers to be slightly longer and finer than a year ago. Picker and card waste is higher. Yarns spun from these samples show approximately the same yarn properties as a year ago except for having slightly fewer imperfections.

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These reports are published bi-weekly during the harvesting season and will be summarized in a comprehensive report at the end of the crop year. A detailed description of the tests shown in this report may be found in the summary report for the previous season.^{1/} These reports are available on request from the Standardization Section, Cotton Division, Agricultural Marketing Service, U. S. Department of Agriculture, 4841 Summer Avenue, Memphis, TN 38122.

^{1/} Summary of Cotton Fiber and Processing Test Results, Crop of 1975,
USDA, AMS, Cotton Division, May 1976.

Table 1.--Cotton: Averages of fiber and processing tests from selected gin points in the United States
1/
through October 15, 1976

Staple group Area, and Crop year	Lots tested	Fiber test results						Processing test results							
		Fibrograph		Mike fine- ness	Fiber strength		S A nonlint	P & C waste	Yarn quality		Spin. Potent.				
		2.5% span	50/2.5 unif.		Pct.	Rdg.			Zero gage	1/8" gage		G/tex	Mpsi	Skein str.	Appear- ance
				Inches			Pct.	Pet.			Lbs.				
			No.												
Short Staple: Southwest 1975 1976	6	1.01	46	4.4	88	23	3.4	5.8	104	113	11	48			
	3	.96	44	4.4	83	20	2.8	7.1	83	113	12	36			
Medium Staple: South Central 1975 1976	6	1.11	46	4.8	88	24	2.9	5.1	99	102	19	54			
	3	1.10	46	4.3	88	22	2.9	5.9	112	107	15	59			
Southwest 1975 1976	21	1.08	45	4.3	81	22	2.9	4.7	103	99	22	58			
	22	1.07	45	4.2	81	22	3.1	6.0	105	99	19	58			
Significant dif- ference 2/		0.02	2	0.2	2	1	0.5	0.5	4(22s)	5	2	3			

1/ Based on a limited number of samples of modal quality

2/ Minimum differences considered to be significant for comparisons in this table.

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1976

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
Sample Number		Grade	Style	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-lint	Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfect's		Spin. Potent-ial	
				2.5% span	Unif		Zero Gage	1/8" Gage			Gra	Yel		8s or 74 tx	22s or 27 tx	8s or 74 tx	22s or 27 tx	8s or 74 tx	22s or 27 tx	8s or 74 tx	22s or 27 tx		
No	Name & Code		32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	No	
SOUTHWEST AREA																							
CENTRAL TEXAS																							
BRANDON																							
1	SLM	LT SP	42	31	0.98	45	4.3	79	20	6.8	3.1	2	4	6.8	307	89	7.7	6.0	130	120	11	9	42
100 PERCENT																							
LANKART 611																							
ITALY																							
1	MID	LT SP	32	30	0.92	42	4.4	82	19	5.6	2.5	2	4	6.7	283	78	6.8	5.5	130	110	14	10	31
100 PERCENT																							
LANKART 57																							
ITASCA																							
1	SLM	LT SP	42	31	0.98	45	4.6	87	21	5.4	2.9	2	4	7.9	296	83	6.4	5.1	130	110	22	17	35
100 PERCENT																							
LANKART LX571																							

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1976

Production Area, Classification & Sample Number				Fiber Test Results										Processing Test Results - Carded Yarns									
No	Grade	Stple	32s	Digital Fibrograph		Mike	Fiber Strength		Elon-gat'n 1/8"	S.A. Non-Lint		Color Raw Stock		P & C Waste	Strength		Elongation		Appearance Index		Imprfect'ns		Spin. Potential
				2.5% span	Unif.		Zero Gage	1/8" Gage		Pct	Pct	Gra	Yel		22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	22s or 27 tx	50s or 12 tx	
SOUTH CENTRAL AREA																							
ARKANSAS DRIVER																							
1	SLM	41	36	1.11	45	4.2	89	23	6.4	3.5	1	2	6.3	100 PERCENT	117	38	6.5	4.5	100	80	16	11	63
LOUISIANA OAK RIDGE																							
1	SLM	41	34	1.10	46	4.3	88	22	6.3	2.4	1	2	5.5	100 PERCENT	116	39	6.1	4.3	110	90	19	13	61
SICILY ISLAND																							
1	SLM	41	34	1.08	46	4.4	87	22	5.3	2.7	2	3	6.0	100 PERCENT	102	32	5.4	3.9	110	100	11	7	53
SOUTHWEST AREA																							
CENTRAL TEXAS AQUILLA																							
1	SGO	61	32	1.01	40	3.1	80	20	6.2	5.6	2	3	9.6	100 PERCENT	95	28	5.9	3.8	70	60	40	30	49
BATESVILLE																							
2	MID	31	35	1.12	46	4.5	80	22	6.4	1.9	1	3	5.5	90 PERCENT	101	32	6.4	4.5	100	80	23	15	56
NAVASOTA																							
1	MID	31	35	1.14	45	4.8	81	22	7.1	1.7	1	3	3.9	95 PERCENT	111	36	6.5	4.7	100	90	13	8	65

1/ Reduced from 51 because of bark

